

ABSTRACT

A rotating electrical machine such as an electrical generator that can be utilized to provide high efficiencies and high outputs in connection with a compact construction. This achieved by having a plurality of spaced permanent magnets of opposite polarity that cooperate with armature coils. The armature coils are wound around core teeth formed from an electromagnetic steel plate having a thickness in the range of 0.25-0.65mm. The permanent magnets are disposed in circumferentially spaced orientation relative to the axis of relative rotation at a magnet electrical angle θ that is in the range of 120° to 140°.